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10/633,611	07/31/2003	Peter G. Webb	10021295-1	5564

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AGILENT TECHNOLOGIES, INC.
Legal Department, DL429
Intellectual Property Administration
P.O. Box 7599
Loveland, CO 80537-0599

EXAMINER

ZEMAN, MARY K

ART UNIT	PAPER NUMBER
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1631

MAIL DATE	DELIVERY MODE
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08/14/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/633,611

Applicant(s)

WEBB ET AL.

Examiner

Mary K. Zeman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5-7,10-13 and 41-60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5-7,10-13 and 41-60 is/are rejected.
- 7) ☒ Claim(s) 58 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 1631, Examiner Mary K Zeman.

Applicant's election with traverse of test for expression levels of one or more genes or a class of genes and a disease in the reply filed on 5/21/07 is acknowledged. The traversal is on the ground(s) that the election is unnecessary as the claim is in Markush format.. This is not found persuasive because Each of the listed test methods requires differing physical testing steps to be searched and considered.

The requirement is still deemed proper and is therefore made FINAL.

Claims 1, 5-7, 10-13, 41-60 are pending.

Claim Objections

Claim 58 is objected to because of the following informalities: a typo in line 2 “does or doe not” should be “does or does not”. Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1, 5-7, 10-13, 41-45, 47-54, 56-57, 60 remain rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Applicant's arguments have been carefully reviewed but they are not persuasive. In regards to claim 1, and claims dependent from claim 1: Claim 1 does not provide a transformation of matter, nor does it provide a concrete, tangible and useful result. Claim 1 does not require any test actually be performed. Only processing of the signal data is required, and results of the processed signal data are output. The

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results of the signal processing are not the results of any test that is actually performed. As such, the “results” do not meet the standard of concrete, tangible and useful. Particularly in claim 13, where no results appear to be provided at all- no specific information is returned regarding the array signal and the sample. Providing further information such as array identifiers, account information etc do not render the process of claim 1 statutory (claims 41 et al) as they add nonfunctional descriptive data to the previously provided signals/ instructions. With regard to claims 44, et al transmission of a non-statutory result does not make the result or the method statutory. Regarding claim 49, the origin of the data does not affect the steps of the method, and does not render the method statutory. With regards to new claims 56, outputting a non-statutory result is not sufficient to make that result concrete, tangible and useful. With regard to claim 57, the recitation of test to be requested does not actually require that any of the tests be done within the claimed method. New independent claims 59 and 60 do not provide a transformation of matter, nor does they provide a concrete, tangible and useful result. Claims 59-60 do not require any test actually be performed. Only processing of the signal data is required, and results of the processed signal data are output. The results of the signal processing are not the results of any test that is actually performed. As such, the “results” do not meet the standard of concrete, tangible and useful. .

Claims 1, 5-7, 10-13, and 41-60 remain rejected under 35 U.S.C. 101 because the claimed invention lacks patentable utility.

Applicant’s amendments and arguments have been carefully considered but are not persuasive. The amendments add a generic disclosure that the test request “references a type of

test” and that “the instructions instruct processing...” these amendments do not provide a specific utility for the claimed method. The result is still “processed signal data” which is not particularly linked to any particular test, nor does it have any frame of reference which would give that result meaning.

Claim 1 is directed to a method comprising steps of providing a test request for reading or processing signal data from a sub-array of probes on an array, retrieving an instruction from a memory, and reading or processing the signal data for the sub-array using the retrieved instructions. The specification on page 3 discloses that the instant invention is useful for acquiring data from feature locations on an array which are relevant to a request and avoiding acquiring data which is irrelevant to the requested test.

A method of identifying and reading only that portion of an array deemed to be "relevant" may have a substantial utility. However, the specification does not disclose any specific utility for the invention. Specifically, the "result" of the claimed method is random signal data, wherein it is not known what the signal data represent (i. e., what the results actually are). Reading a specific part of an array does not grant specificity to the result of the instant method. In order for the result of the method to be useful, one skilled in the art must be aware of what the acquired signal data represent. Absent any disclosure for instructions, processing, array, probes, etc., the asserted utility is not specific. No such information is recited in the instant claims. Applicant is reminded that a "use" to perform further research is not a utility under 35 U.S.C. 101. For the reasons set forth above, the invention lacks a specific utility, and therefore lacks a patentable utility.

Claims 1, 5-7, 10-13, 41-60 also remain rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a specific asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

New Claim 58 recites the limitation "whether a sample that was exposed to the chemical array..." in reference to claim 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 does not have any steps of applying any sample to any array.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 5-7, 10-13, 41, 44-45, 47-52, 56-60 remain rejected under 35 U.S.C. 102(e) as being anticipated by Zhou et al. 2004/0218795 A1 for the reasons of record

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C.

102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Applicant’s arguments and amendments have been carefully reviewed but they are not persuasive. The added limitations to claim 1 regarding the test request and the instructions fail to distinguish over Zhou et al. The limitation regarding the test request does not specify any test is actually performed, nor does it specify a type of test to be performed, or that has been performed. In regards to the instructions, the limitation says any element of the method and array and sub array is instructable (capable of being used for instruction.) The does not obviate the instruction requests present in Zhou. Further, the output step added to claim 1 fails to obviate Zhou.

Zhou discloses a method of determining feature locations on an array image obtained from reading a chemical array (abstract). Zhou discloses steps of providing a test request (a user selected array and sub-array layout information), retrieving different instruction for reading sub-arrays from a memory, and reading sub-arrays ([0039]-[0042] and [0052]-[0056] and fig. 4-8).. The arrays of Zhou are to be used in diagnostic, screening, gene expression analysis and other applications and tests. (0001) (claims 57 and 58). The various tests are from a sample binding an array (0002, et seq). The system receives the instructions from the user as to which tested sections to process. (feature selection, selecting an array or sub array to process, determining an outline of features to process.) Multiple regions of the same array, or more than one array can be selected, meeting the limitation of at least two instructions. (0005). Signals from the instructions are then processed, and the selected regions are displayed to the user. (0040). Thus,

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Zhou anticipates claims 1, 45, 47, 56 59, 60. Zhou discloses repeating the method steps for sub-arrays on an array ([0041], [0054], claim 6), thereby anticipating claim 5. Zhou discloses instructions for processing signal data from a sub-array and receiving the instruction from a memory with a different test request ([0041], [0052]), thereby anticipating claims 6-7, 10- 11, and 13. Zhou discloses transmitting results acquired from an array to a remote location for processing ([0052] and claim 10), thereby anticipating claims 12, 44, and 51-52. Zhou discloses a nucleic acid array with disposed probes wherein a sample is labeled with a fluorescent compound ([0002], [0058]), thereby anticipating claims 13 and 49. Zhou discloses providing an array identifier and retrieving instructions based on the identifier and test instruction (an array layout information comprising an array identifier and sub-array information) ([0041] and [0052]), thereby anticipating claims 41 and 50. Zhou discloses processing signal data (e.g., determining feature locations) (claims 1 and 9; [0039]), thereby anticipating claims 47-48.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 42-43, 46, and 53-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhou, US 2004/0218795, as applied to claims 1, 5-7, 10-13, 41, 44-45, 47-52, 56-60 above, in view of Venkatesan, U.S. Patent 6,282,550 for the reasons of record.

Zhou teaches the method of instant claims 1, 5-7, 10-13, 41, 44-45, 47-52, 56-60, as set forth above. Zhou clearly discloses the methods of providing information requests for reading arrays or sub arrays and processing those requests, and outputting the results to a user or requestor.

Zhou does not disclose steps of providing account information, transmitting account information, and providing a requestor with the test price in conjunction with the information and results that are output.

Venkatesan disclose a method for providing biological information to a customer or user that requests and receives information via a network (fig. 5). Venkatesan further discloses that a provider may automatically bill a customer via a network (col. 3, line 40-49). In order to bill a customer, the provider has to create an account for the user and adjust the price to the price agreed between the customer and a supplier (col.3, line 27-41). Thus, Venkatesan discloses identifying an account and adjusting the account to product pricing for biological information. Venkatesan teaches selling a biological product to a user base upon the modified price (col. 3-4). Venkatesan teaches remote communication between a provider and a customer (fig. 5). Internet commerce was a well established practice at the time of the invention absent evidence to the contrary. The ability to use a computer network for identifying, requesting, and receiving moneys in exchange for goods and/or information would have been expected to be fast, reliable and convenient. As evidenced by Ventakesan, one of skill in the art would have had a reasonable expectation of success in building a network for the exchange of biological information and/or services through the computer, which included accounts, billing, and receipt of money.

It would have been obvious to one skilled in the art at the time of the invention to have expanded the method of Zhou to include the communication of pricing information to and from a customer ordering a product, to create an account for billing a customer on-line, and to sell a product after a series of modifications conducted on-line, such as taught by Venkatesan, where the motivation would have been to provide an efficient and less time consuming process of buying a biological product to customers, as taught by Venkatesan, col. 1.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary K Zeman whose telephone number is (571) 272 0723


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram Shukla can be reached on (571) 272 0735. The fax phone number for the organization where this application or proceeding is assigned is 571 273 8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.


MARY K. ZEMAN
PRIMARY EXAMINER
